# REPORT

OF THE

# CHIEF INSPECTOR OF MINES AND EXPLOSIVES IN MYSORE

*FOR THE YEAR 1937-38.*

## A—MINING AND PROSPECTING.

### (1) CERTIFICATES OF APPROVAL.

The number of Certificates of Approval current during the year was 27, of which six were freshly issued and the rest renewed.

### (2) LEASES AND LICENSES.

The following statements show the number of leases and licenses current during the year as compared with the previous year 1936-37 :—

**(a) Mining Leases.**

| Mineral | District | 1936-37 | 1937-38 |
|---|---|---|---|
| Gold ... ... | Kolar ... ... | 21 | 21 |
| Chromite ... ... | Mysore ... ... | 2 | 2 |
| | Hassan ... ... | 5 | 5 |
| Kaolin .. ... | Kolar ... ... | 1 | 1 |
| | Kolar and Bangalore ... | 1 | 1 |
| Magnesite (also Chromite) ... | Mysore ... ... | 3 | 3 |
| Manganese ... ... | Chitaldrug ... ... | 3 | 3 |
| Mica ... ... | Hassan ... ... | ... | 1 |
| | Total ... | 36 | 37 |

**District Abstract**

| *District.* | *1936-37.* | *1937-38.* |
|---|---|---|
| Mysore ... ... | 5 | 5 |
| Kolar ... ... | 22 | 22 |
| Kolar and Bangalore ... ... | 1 | 1 |
| Hassan ... ... | 5 | 6 |
| Chitaldrug ... ... | 3 | 3 |
| Total ... | 36 | 37 |

**(b) Prospecting Licenses.**

| Mineral | District | 1936-37 | 1937-38 |
|---|---|---|---|
| Asbestos ... ... | Hassan ... ... | 1 | 1 |
| Asbestos and Mica ... ... | Hassan ... ... | 1 | 1 |
| Copper ... ... | Chitaldrug ... ... | 1 | 1 |
| | Mysore ... ... | 1 | 1 |
| Copper, Lead and Silver ... | Chitaldrug ... ... | 2 | 2 |
| Chrome ... ... | Hassan ... ... | 1 | 1 |
| | Mysore ... ... | 1 | 1 |
| Gold ... ... | All Districts ... ... | 1 | 1 Kolar District only. |
| Green Quartzite ... ... | Kadur ... ... | 1 | ... |
| Iron ... ... | Chitaldrug ... ... | ... | 3 |
| Kaolin or China Clay ... ... | Bangalore ... ... | 1 | 8 |
| | Kolar ... ... | 3 | 2 |
| | Chitaldrug ... ... | ... | 1 |
| Kyanite ... ... | Hassan ... ... | 3 | 3 |
| Lead ... ... | Chitaldrug ... ... | 1 | 1 |
| Magnesite ... ... | Mysore ... ... | 1 | 3 |
| Manganese ... ... | Shimoga ... ... | 9 | 10 |
| | Tumkur ... ... | 3 | 5 |
| | Chitaldrug ... ... | 4 | 5 |
| Mica ... ... | Mysore .. ... | 2 | 2 |
| Ochres ... ... | Chitaldrug ... ... | 2 | 2 |
| | Tumkur ... ... | 1 | 1 |
| Slatestone ... ... | Tumkur ... ... | 3 | 1 |
| | Total ... | 43 | 56 |

**District Abstract.**

| *District.* | *1936-37.* | *1937-38.* |
|---|---|---|
| Bangalore ... ... | 1 | 8 |
| Mysore ... ... | 5 | 7 |
| Kolar ... ... | 3 | 3 |
| Tumkur ... ... | 7 | 7 |
| Kadur ... ... | 1 | ... |
| Hassan ... ... | 6 | 6 |
| Shimoga ... ... | 9 | 10 |
| Chitaldrug ... ... | 10 | 15 |
| All Districts ... ... | 1 | ... |
| Total ... | 43 | 56 |

**(c) Collecting Licenses.**

| *Mineral.* | *District.* | *1936-37.* | *1937-38.* |
|---|---|---|---|
| apstone ... | Tumkur ... | 3 | 3 |
| | Total ... | 3 | 3 |

**(d) Exploring Licenses.**

| *Mineral.* | *District.* | *1936-37.* | *1937-38.* |
|---|---|---|---|
| Corundum ... | Mysore ... | 1 | ... |
| Manganese ... | Shimoga ... | 1 | ... |
| All Minerals ... | Bangalore ... | ... | 1 |
| | Mysore ... | ... | 1 |
| | Kolar ... | ... | 1 |
| | Shimoga ... | ... | 1 |
| | Total ... | 2 | 4 |

**(e) Summary.**

The following statement shows the number of leases, licenses and approval certificates current during the year as compared with the previous year :—

| | *1936-37.* | *1937-38.* |
|---|---|---|
| 1. Mining Leases ... | 36 | 37 |
| 2. Prospecting Licenses ... | 43 | 56 |
| 3. Collecting do ... | 3 | 3 |
| 4. Exploring do ... | 2 | 4 |
| 5. Certificates of Approval .. | 27 | 27 |
| Total ... | 111 | 127 |

Total area covered by Mining Leases and Prospecting Licenses .—

| *1936-37.* | *1937-38.* |
|---|---|
| 61,508 acres and 21 guntas. | 72,323 acres and 23 guntas. |

The above figures exclude the area of 2,360 square miles held by the Indian Mines Development Syndicate, Limited, under a special prospecting license for gold till 14th May 1938, from which date the license has been surrendered.

The total rent including cesses realised is noted below :—

| *1936-37* | *1937-38.* |
|---|---|
| Rs. 20,667-1-3. | Rs. 19,411-14-3. |

The slight fall is due to relinquishment of the special license for gold held by the Indian Mines Development Syndicate, Limited.

## B—GOLD MINING.

**1. Gold Production, Dividends and and Royalty for the Calendar year 1937.**

The nominal capital of all the companies carrying on operations in Mysore was—

| | £ | *s.* | *d.* |
|---|---|---|---|
| In December 1937 ... ... | 1,628,000 | 0 | 0 |
| In December 1936 ... ... | 1,628,000 | 0 | 0 |

or the same for both years.

The amount of the above capital called and paid-up was—

| | £ | *s.* | *d.* |
|---|---|---|---|
| In December 1937 ... ... | 1,578,772 | 0 | 0 |
| In December 1936 ... ... | 1,578,772 | 0 | 0 |

or the same for both years.

The number of companies which carried on operations during the year was the same as in the previous year, *viz.*, four, all of which produced gold and paid dividends.

The quantity of fine gold produced—

| | | *Ozs.* |
|---|---|---|
| During 1937 amounted to | ... ... | 330,710·223 |
| and during 1936 to | ... ... | 331,856·153 |
| being a decrease of | ... ... | 1,145·930 |

The quantity of fine silver produced—

| | | *Ozs.* |
|---|---|---|
| During 1937 amounted to | ... ... | 24,642·07 |
| and during 1936 to | ... ... | 25,344·66 |
| being a decrease of | ... ... | 702·59 |

The total value of fine gold and silver produced—

| | | £. | s. | d. |
|---|---|---|---|---|
| During 1937 amounted to | ... ... | 2,307,306 | 2 | 9 |
| and during 1936 (revised) | ... ... | 2,316,426 | 6 | 6 |
| being a decrease of | ... ... | 9,120 | 3 | 9 |

or a decrease of 0·39 per cent as against an increase of 0·81 per cent in the previous year, the decrease being due to reduced output.

The total amount paid in dividends—

| | | £ | s. | d. |
|---|---|---|---|---|
| During 1937 was | ... ... ... | 519,863 | 12 | 0 |
| and in 1936 | ... ... ... | 558,203 | 6 | 6 |
| being a decrease of | ... ... ... | 38,339 | 14 | 6 |

The total dividends paid during the year by all the companies amounted to 32·23 per cent of the paid-up capital, the corresponding figure for 1936 being 35·36 per cent.

The royalty payable to Government on the gold and silver won and on dividends paid or adjusted profits amount to—

| | | £ | s. | d. |
|---|---|---|---|---|
| During the year 1937 | ... .. ... | 193,443 | 4 | 11 |
| and in 1936 (revised) | ... ... ... | 213,622 | 19 | 4 |
| being a decrease of | ... ... ... | 20,179 | 14 | 5 |

the decrease being 9·45 per cent as against an increase of 9·28 per cent in 1936 (revised) due to decreased production and lower rates of dividends declared by Champion Reef, Ooregum and Nundydroog Companies.

**II. Total Gold Production, Dividends and Royalty from 1882 to the end of 1937.**

The total quantity of fine gold produced from the commencement of mining operations is—

| | | Ozs. |
|---|---|---|
| Up to the end of 1936 | ... .. .. | 18,567,050·587 |
| and for 1937 | ... ... ... | 330,710·223 |
| | Grand Total ... | 18,897,760·810 |

The total value of gold bullion produced—

| | | £. | s. | d. |
|---|---|---|---|---|
| Up to the end of 1936 (revised) | ... ... | 84,128,586 | 5 | 3 |
| and for 1937 | ... ... ... | 2,307,306 | 2 | 9 |
| | Grand Total .. | 86,435,892 | 8 | 0 |

Total dividends paid—

| | £ | s. | d. |
|---|---|---|---|
| Up to the end of 1936 ... ... ... | 25,005,655 | 11 | 8 |
| and for 1937 ... ... ... | 519,863 | 12 | 0 |
| Grand Total ... | 25,525,519 | 3 | 8 |

The amount of royalty which has been paid to Government is—

| | £ | s. | d. |
|---|---|---|---|
| Up to the end of 1936 (revised) ... ... | 4,686,660 | 8 | 3 |
| and for 1937 ... ... ... | 193,443 | 4 | 11 |
| Grand Total ... | 4,880,103 | 13 | 2 |

The total value of gold produced, working costs, profits earned, dividends declared and royalty paid from the commencement of operations to the end of the year 1937 are graphically represented in the following Chart I. The ratio of total dividends and royalty paid to the nominal capital of the present working companies on the Kolar Gold Field works out at 15·68 and 3·00 respectively.

**III. Statement showing the Amount of Royalty Payable to Government, the Amount Paid and the Balance still due for the year 1937.**

(As furnished by the Comptroller).

GOLD (A).

| No. | Name of Mine | Balance due on account of the previous year | Amount due for the current year | Total demand | Collection | Balance due (1st January 1938) |
|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. (a) (b) | Rs. a. p. | Rs. a. p. |
| 1 | Mysore ... ... | 1,13,599 1 0 | 6,34,184 0 0 | 7,47,783 1 0 | 6,30,395 1 0 | 1,17,388 0 0 |
| 2 | Champion Reef .. ... | 81,088 10 0 | 6,43.375 5 0 | 7,24,463 15 0 | 6.42,085 2 0 | 82,378 13 0 |
| | Ooregum ... ... | 60,416 13 0 | 2,50,645 14 0 | 3,11,062 11 0 | 2,54,133 10 0 | 56,929 1 0 |
| 4 | Nundydroog ... ... | 1,33,701 9 0 | 13,10,378 4 0 | 14,44,079 13 0 | 13,19,045 7 0 | 1,25,034 6 0 |
| | Total ... | 3,88,806 1 0 | 28,88,583 7 0 | 32,27,389 8 0 | 28,45.659 4 0 | 3,81,730 4 0 |
| | Total for 1936 ... | 3,79,446 9 0 | 26.35,340 13 0 | 30,14.787 6 0 | 26,25,981 5 0 | 3,88,806 1 0 |

(a) These figures include the amounts paid during the year 1937 on account of royalty on dividends or "adjusted profits" and not the amounts actually due for the year 1937.

(b) In addition, a sum of Rs. 38-12-0 was paid by the Secretary, Kolar Gold Field Mining Board, on account of royalty on confiscated gold.

SILVER (B).

| No. | Name of Mine | Balance due on account of the previous year | Amount due for the current year | Total demand | Collection | Balance due (1st January 1938) |
|---|---|---|---|---|---|---|
| | | Rs. a p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| 1 | Mysore ... ... | 187 4 0 | 362 5 0 | 549 9 0 | 372 14 0 | 176 11 0 |
| 2 | Champion Reef ... ... | 167 11 0 | 336 0 0 | 503 11 0 | 339 6 0 | 164 5 0 |
| 3 | Ooregum ... ... | 175 5 0 | 348 4 0 | 523 9 0 | 370 0 0 | 153 9 0 |
| 4 | Nundydroog ... ... | 299 10 0 | 570 6 0 | 870 0 0 | 600 8 0 | 269 8 0 |
| | Total ... | 829 14 0 | 1,616 15 0 | 2,446 13 0 | 1,682 12 0 | 764 1 0 |
| | Total for 1936 ... | 761 7 0 | 1,651 15 0 | 2,413 6 0 | 1,583 8 0 | 829 14 0 |

**IV. Gold Production for the Six Months ending 30th June 1938.**

| Name of Mine | | Fine ozs. | Fine ozs. | Value £ Sterling (estimated) |
|---|---|---|---|---|
| Mysore— | | | | |
| Current ore ... ... | ... | 47,835·63 | | |
| Retreatment of tailings dumps | ... | ... | | |
| Other sources ... ... | ... | ... | | |
| | Total ... | ... | 47,835·63 | 333,549 |
| Champion Reef— | | | | |
| Current ore ... ... | ... | 35,005·71 | | |
| Retreatment of tailings dumps | ... | ... | | |
| Other sources ... ... | ... | ... | | |
| | Total ... | ... | 35,005·71 | 244,089 |
| Ooregum— | | | | |
| Current ore ... ... | ... | 24,230·47 | | |
| Retreatment of tailings dumps | ... | (a) 379·40 | | |
| Other sources ... ... | ... | ... | | |
| | Total ... | ... | 24,609·87 | 171,600 |
| Nundydroog— | | | | |
| Current ore ... ... | ... | 46,682·57 | | |
| Retreatment of tailings dumps | ... | 2,912·82 | | |
| Other sources ... ... | ... | (b) 398·36 | | |
| | Total ... | ... | 49,993·75 | 348,597 |
| | Grand Total ... | ... | 157,444·96 | 1,097,835 |

NOTE.—The figures in this statement are subject to revision.

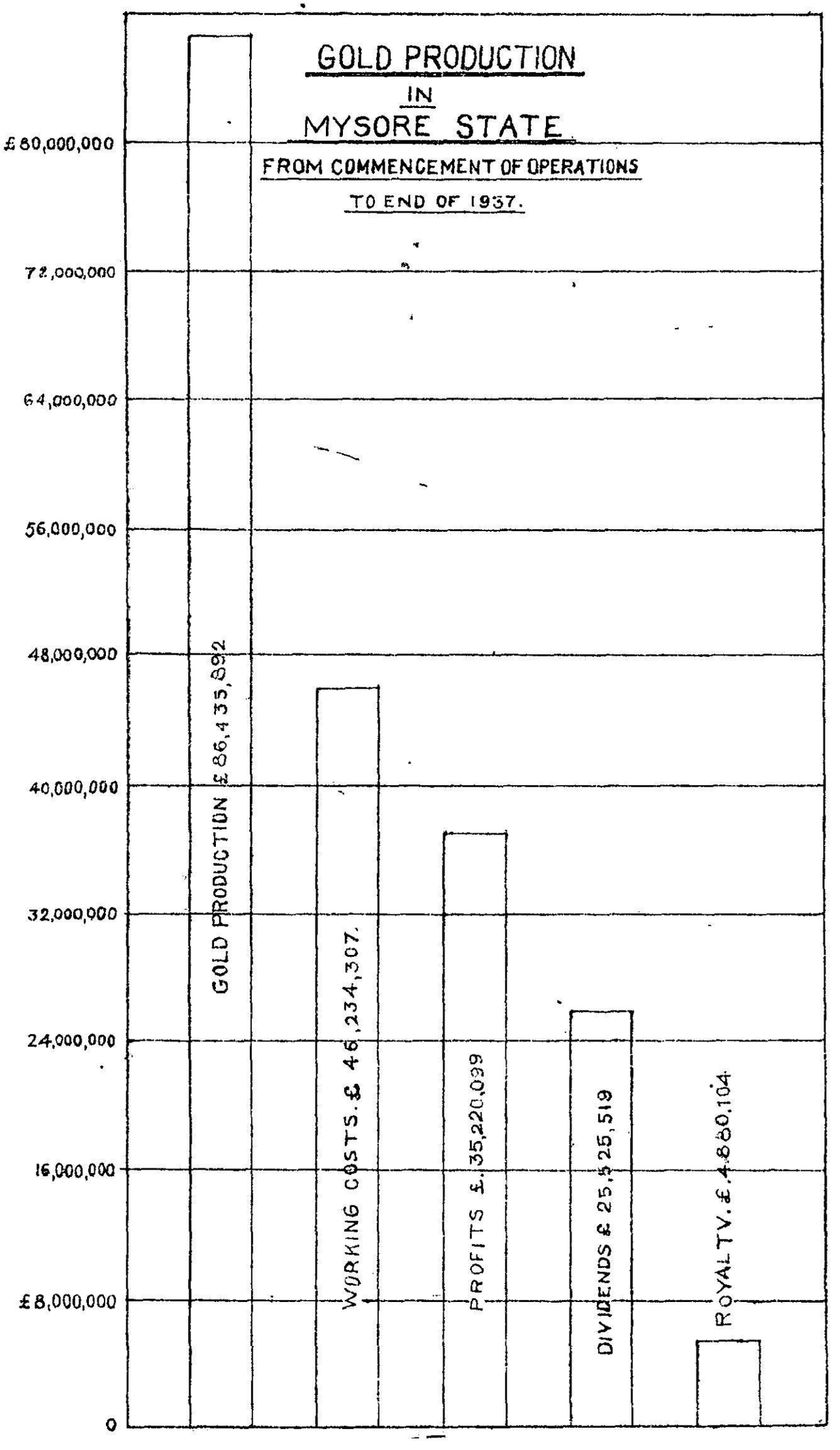
(a) Obtained from accumulated slimes.

(b) Mined and treated by Ooregum Company.

*Price of Gold.*—All the gold produced during the year was sold in India in the Bombay market and the monthly average prices varied from 138·02 sh. per oz. to 141·01 sh. per oz. The average price for the year was 139·01 sh. per oz. against 140·12 sh. per oz. in the year 1936-37.

The accompanying Chart II shows the monthly rate of production and the average price of gold during the years 1931 to 1937 and the firsthalf of 1938.

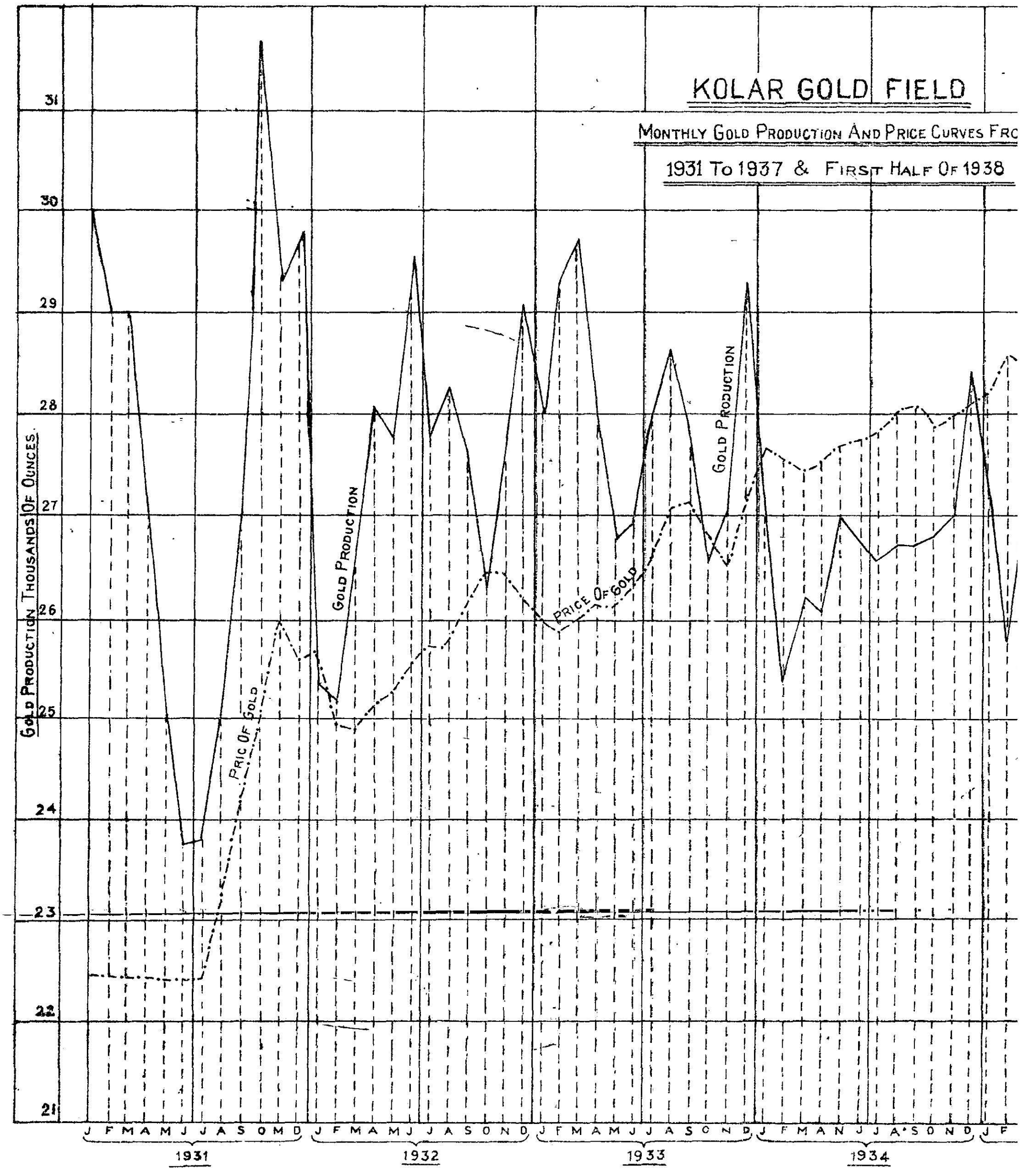
CHART. 1


GOLD PRODUCTION
IN
MYSORE STATE
FROM COMMENCEMENT OF OPERATIONS
TO END OF 1937.
£80,000,000
72,000,000
64,000,000
56,000,000
48,000,000
40,000,000
32,000,000
24,000,000
16,000,000
£8,000,000
0
GOLD PRODUCTION £86,435,892
WORKING COSTS. £ 46,234,307.
PROFITS £. 35,220,039
DIVIDENDS £ 25,525,519
ROYALTY. £. 4,880,104

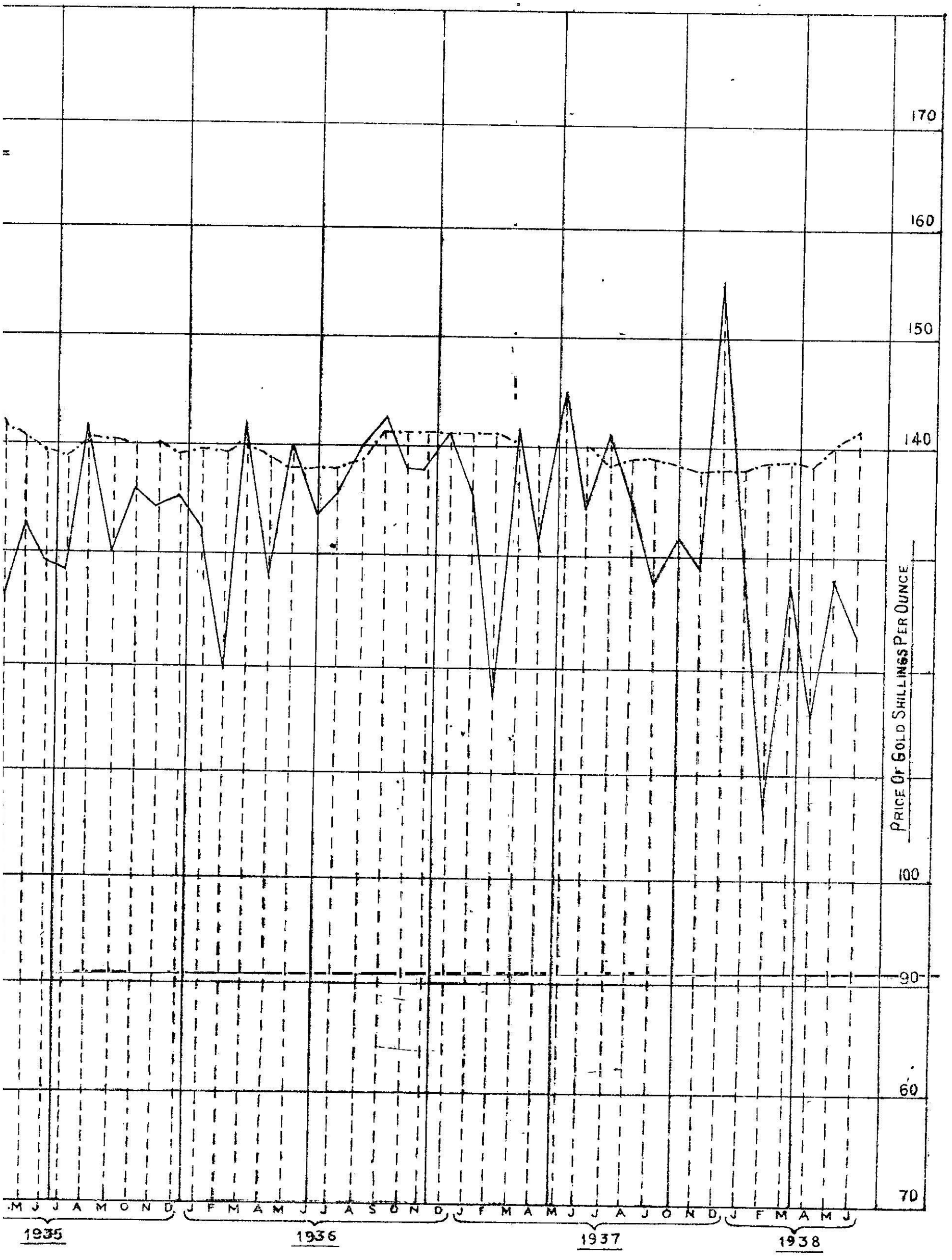
# KOLAR GOLD FIELD

## MONTHLY GOLD PRODUCTION AND PRICE CURVES FRO

## 1931 TO 1937 & FIRST HALF OF 1938



# CHART 11.


170
160
150
140
100
90
60
70
PRICE OF GOLD SHILLINGS PER OUNCE
M J J A M O N D
J F M A M J J A S O N D
J F M A M J J A J O N D
J F M A M J
1935
1936
1937
1938

## V. Number of Mines.

### GOLD.

*Active or Producing.*

Mining operations were in progress on the following blocks on the Kolar Gold Field as in the previous year :—

(1) Mysore Block, comprising Mining Leases Nos. 127, 128 129, 130, 134, 144, 151 and 152 worked by the Mysore Gold Mining Company, Limited.

(2) Champion Reef Block, comprising Mining Leases Nos. 121 and 136 worked by the Champion Reef Gold Mines of India, Limited.

(3) Ooregum Block, comprising Mining Leases Nos. 132 and 137 worked by the Ooegam Gold Mining Company of India, Limited.

(4) Nundydroog Block, comprising Mining Leases Nos. 120, 123, 139, 145, 146, 162 and 163 worked by the Nundydroog Mines, Limited.

*Dividends.*—All the mines paid dividends for the year under report; the total amount distributed was £519,863-12-0 or 32·23 per cent of the paid-up capital of all the companies against £558,203-6-6 or 35·36 per cent in the previous year, resulting in a decrease of £38,339-14-6 or 3·13 per cent. The Nundydroog Mines, Limited, paid the highest rate of dividend, *viz.*, 65 per cent—7½ per cent less than in the previous year. The Mysore Company paid the same rate as last year, *viz.*, 27½ per cent, while Champion Reef paid 42½ per cent and Ooregum 5 and 15 per cent on ordinary and preference shares, respectively, 2½ per cent less than in the previous year.

*Output and Value.*—The year's mining operations resulted in an output of 330,710·22 ozs. of fine gold and 24,642·07 ozs. of fine silver. The total value realised, *viz.*, £2,307,306-2-9 was £9,120-3-9 less than that of the previous year, which was due mostly to decreased production. Details of gold production, value, royalty, etc., are available in Table I appended to this report.

*Tonnage Crushed.*—The total quantity of current ore crushed by the four mines and the retreatment of old tailings by Ooregum and Nundydroog Mines amounted to 767,469 tons and 242,702 tons, respectively. The retreatment of old dumps of the Ooregum Company was completed in August 1937 and thereafter only 2,778 tons of accumulated slime was treated.

*Ore Reserves.*—All the Mines on the Kolar Gold Field continued to make additions to their ore reserves. On the whole, there was an increase of 55,125 tons as compared with the reserves at the end of 1936.

The following statement gives the estimated reserves of ore at the end of 1937 compared with 1936 :—

| Name of Mine | 1936 | Average grade of ore per ton. | 1937 | Average grade of ore per ton. | Difference |
|---|---|---|---|---|---|
| | Tons. | Dwt. | Tons. | Dwt. | Tons. |
| Mysore ... | 440,000 | 12·50 | 449,000 | 11· 8 | +9,000 |
| Champion Reef ... | 471,149 | 11·36 | 496,605 | 11·52 | +25,456 |
| Ooregum ... | 219,624 | 9·95 | 233,712 | 10·11 | +14,088 |
| Nundydroog ... | 581,545 | 12·31 | 588,126 | 11·53 | +6,581 |
| Total ... | 1,712,318 | ... | 1,767,443 | ... | +55,125 |

In addition to the above, there is a further reserve of low grade ore payable at the present price of gold, details of which are given in the following statement:—

| Name of Mine | 1936 | 1937 | Difference |
|---|---|---|---|
| | Tons. | Tons. | Tons |
| Mysore ... . | 284,000 | 297.000 | +13,000 |
| Champion Reef .. ... | 111,194 | 110,038 | —1,156 |
| Ooregum ... | 88,874 | 90,166 | +1,292 |
| Nundydroog ... ... | 213,784 | 216,352 | +2,568 |
| Total . | 697,852 | 713,556 | 15,704 |

The following statement gives the total tonnage of ore reserves including low grade ore (1937) and the average quantity crushed by each mine during the past five years:—

| Name of Mine | Total reserves | Average tonnage crushed during the past five years |
|---|---|---|
| | Tons | Tons |
| Mysore ... ... ... | 746,000 | 190,832 |
| Champion Reef ... ... ... | 606,643 | 135,790 |
| Ooregum ... ... .. | 323,878 | 149,108 |
| Nundydroog ... ... ... | 804,478 | 234,172 |
| Total .. | 2,480,999 | 709,902 |

*Inactive or Non-Producing.*

1. Krishnarajapur Block, Mining Lease No. 119.
2. East Betrayaswami Block, Mining Lease No. 118; option held by the Mysore Gold Mining Company, Limited.

*Special Prospecting License.*

It has to be recorded with regret that the only prospecting activity for gold in the State outside Kolar Gold Field ceased on the 14th of May 1938 owing to unfavourable results. The Indian Mines Development Syndicate, Limited, who had obtained a Special Prospecting License for gold and silver for a period of three years from 1936 over an area of 29,217 square miles, carried out a geo-physical survey of an area of about six square miles near the villages of Manighatta, Holur and Yadarur—15 to 20 miles North of the Kolar Gold Field—to locate the northern extension of the Kolar reefs but as no discovery of any value was made, arrangements are now in progress to fill up the shafts and trenches that were made during the course of exploratory work.

*Ventilation.*

The schemes that were undertaken last year for improving the working conditions at the bottom levels of the Champion Reef and the Ooregum Mines—

the two deepest mines of the Field—are nearing completion. The erection of the cooling plant at the top of Circular Shaft in Ooregum Mine has been completed and it is expected to be put into commission early. In the Champion Reef Mine, the extending of Gifford Shaft from the 42nd to the 70th level has been finished and a great improvement in the quantity and quality of the downcast air going down a straight smooth-lined shaft for a distance of 6,556 ft. is anticipated. Auxiliary fans and blowers are largely used to ventilate the development ends. All the important shafts and air-ways are smooth-lined as far as possible to reduce the frictional resistance to the flow of air.

In spite of all these arrangements to reduce the heat in the mines, the air temperatures are still high and the working conditions enervating. Ozonising underground atmosphere was tried in the Ooregum Mine last year by fixing ozonisers in specially selected places but it has not proved quite a success.

The following statement shows the number and particulars of fans installed in the mines on the Kolar Gold Field :—

Statement showing the ventilation Fans installed in the Mines working on the Kolar Gold Field. Field Datum is 2,967·21 feet above sea level (Madras).

| Number Installed | Number In use | Situation and depth below surface | Vertical depth below Field Datum | Type of Fan | Size diameter of runner and width of casing in inches | Speed R.P.M. | Rated E.H.P. at surface | Volume of air in cubic feet per minute | Water gauge in inches | Size of fan outlet |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **MYSORE GOLD MINING COMPANY, LIMITED.** | | | | | | | | |
| 1 | 1 | Ribblesdale's 51st level ... | 3,711 | Sirroco | 50″×36″ | 375 | | 40,000 | 3·0 | 40″×40″ |
| 1 | 1 | Rowse's 57th level ... | 4,302 | do | 50″×36″ | 375 | | 28,000 | 2·75 | 40″×40″ |
| 1 | 1 | Air Shaft 50th level ... | 3,582 | do | 40″×18″ | 480 | | 9,000 | 1·0 | 24″×24″ |
| 1 | 1 | Rowse's No. 2, 73rd level ... | 5,891 | do | 40″×18″ | 480 | | 23,000 | 2·5 | 24″×24″ |
| 1 | 1 | North of Air Shaft, 59th level ... | 4,502 | do | 25″×15″ | 750 | | 18,000 | 2·0 | 20″×20″ |
| 1 | 1 | Edgar's Auxiliary, 50th level ... | 3,580 | do | 56″×64″ | 440 | | 85,000 | 5·5 | 64″×86″ |
| 1 | 1 | South Auxiliary, 80th level ... | 6,580 | do | 20″×7½″ | 1,430 | | 5,000 | 2·5 | 11″×11″ |
| 1 | 1 | North Do do ... | 6,580 | do | 20″×7½″ | 1,430 | | 5,000 | 2·5 | 11″×11″ |
| 1 | 1 | 80th level North Auxiliary Vertical Shaft ... ... | 6,580 | Sturtevant | 36″×12″ | 640 | 349 | 10,000 | 3·0 | 13″ dia |
| 1 | 1 | 84th level Sub Vertical Shaft ... | 6,980 | do | 36″×12″ | 640 | | 10,000 | 3·0 | 13″ dia |
| 1 | 1 | Do do Drive ... | 6,980 | Torpedo | 25″× 4″ | 1,450 | | 4,000 | 2·5 | 18″ dia |
| 1 | 1 | Do Main Winze ... | 6,980 | do | 25″× 4″ | 1,450 | | 4,000 | 2·5 | 18″ dia |
| 1 | 1 | Do South Auxiliary Vertical No. 4 winze ... | 6,980 | do | 25″×4 ″ | 1,450 | | 4,000 | 2·5 | 18″ dia |
| 1 | 1 | 84th level No. 1 winze ... | 6,980 | do | 25″×4 ″ | 1,450 | | 4,000 | 2·5 | 18″ dia |
| | | **CHAMPION REEF GOLD MINES OF INDIA, LIMITED.** | | | | | | | | |
| 1 | 1 | 40th level converter Chamber ... | 3,633 | Sirocco | 30″×24″ | 715 | 15 | 23,000 | 2·0 | 30″ dia |
| 1 | 1 | 41st Rowe's ... | 3,687 | do | 25″×46″ | 375 | 67 | 63,000 | 3·3 | 48″×64″ |
| 1 | 1 | 59th level South of Heathcote Shaft | 5,425 | do | 55″×46″ | 375 | 36 | 47,918 | 3·5 | 48″×64″ |
| 1 | 1 | 40th level Glen's ... | 3,633 | do | 55″×46″ | 365 | 50 | 47,268 | 1·9 | 48″×64″ |
| 1 | 1 | 59th North Carmichael's Shaft ... | 5,425 | Aeroto | 50″ | 1,475 | 83 | 67,000 | 5·0 | 65″ dia |
| 1 | 1 | 78th North Main Winze ... | ... | Backward bladed | 28½″×13½″ | 1,440 | 10 | 8,672 | 5·0 | 25½″×13½″ |
| 1 | 1 | 80th level Heathcote Shaft ... | 7,600 | do | 28½″×13½″ | 1,440 | 12 | 12,200 | 2·41 | 25½″×13½″ |
| 1 | 1 | 80th level South of South Development Winze ... | 7,600 | do | 28½″×13½″ | 1,440 | 12 | 9,420 | 4·0 | 25½″×13½″ |
| | | **OOREGUM GOLD MINING COMPANY OF INDIA, LIMITED.** | | | | | | | | |
| 1 | 1 | Bullen's 66th level Blackman Fan ... | 6,076 | Sirocco | 56″×53″ | 380 | 93 | 90,000 | 4·0 | 66″×53″ |
| 1 | — | Bullen's 66th level Fan ... | 6,076 | do | 50″×40″ | 360 | 36 | 41,000 | 3·0 | 40″×40″ |
| 1 | — | Circular Shaft Fan at surface ... | 100 | do | 77″×88″ | 362 | 252 | 225,000 | 4·1 | 88″×88″ |
| 1 | 1 | Do do .. | 100 | Torpedo | 95″×58″ | 730 | 236 | 200,000 | 4·6 | 95″ dia |
| 1 | – | Oakley' Shafts Fan at surface ... | 133 | Sirocco | 84″×96″ | 296 | 204 | 208,000 | 4·0 | 96″×96″ |
| 1 | 1 | Bullen's Induce Draught Fan ... | 100 | do | 60″×40″ | 360 | 16 | .. | ... | 40″×40″ |
| 1 | 1 | Auxiliary Shaft, 76th level Fan ... | 7,028 | Torpedo | 75″ dia | 735 | 76 | 80,000 | 5·0 | 75″ dia |
| 1 | 1 | Auxiliary Shaft, 84th level Fan ... | 7,828 | do | 25″ dia | 1,380 to 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,828 | do | 25″ dia | 1,380 to 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Auxiliary Shaft, 85th level Fan ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,921 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4 000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,925 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Bullen's 65th level Fan ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Do do ... | 7,928 | do | Do | 1,390 | 3 | 4,000 | 2·5 | 25″ |
| 1 | 1 | Auxiliary Shaft, 73rd level Fan ... | 6,728 | Venturia | 12″ dia | Variable | ... | 75 | ... | 12″ dia |
| 1 | 1 | Do 76th do .. | 7,028 | do | Do | do | ... | 75 | ... | 12″ dia |
| 1 | 1 | Do 80th do .. | 7,428 | do | Do | do | ... | 75 | ... | 12″ dia |
| 1 | 1 | Do 82nd do .. | 7,628 | Blower Fan | 14″ dia | do | ... | 75 | .. | 14″ dia |

| Number Installed | Number In use | Situation and depths below surface | Vertical depth below Field Datum | Type of Fan | Size diameter runner and width of casing in inches | Speed R.P.M. | Rated E. H. P. at surface | Volume of air in cubic feet per minute | Water gauge in inches | Size of fan outlet |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | Auxiliary Shaft, 84th level Fan ... | 7,828 | Blower Fan | 14" dia | Variable | ... | 75 | | 14" dia |
| 1 | 1 | Do 85th do .. | 7,928 | Venturia | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do .. | 7,928 | do | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | Blower Fan | 14" dia | do | ... | 75 | ... | 14" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 14" dia | do | ... | 75 | ... | 14" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 14" dia | do | ... | 75 | .. | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | Venturia | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 86th do ... | 8,028 | Blower | 14" dia | do | ... | 75 | ... | 14" dia |
| 1 | 1 | Bullen's Shaft, 74th level Fan ... | 6,828 | Venturia | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 82nd do ... | 7,628 | Blower Fan | 14" dia | do | ... | 75 | ... | 14" dia |
| 1 | 1 | Do 82nd do ... | 7,628 | Blower Fan | 14" dia | do | ... | 75 | ... | 14" dia |
| 1 | 1 | Do 85th do ... | 7,928 | Venturia | 12" dia | do | ... | 75 | | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | 12" dia | do | ... | 75 | ... | 12" dia |
| 1 | 1 | Do 85th do .. | 7,928 | Heleshaw | ... | do | ... | 130 | ... | 15" dia |
| 1 | 1 | Do 85th do ... | 7,928 | do | ... | do | ... | 130 | ... | 15" dia |
| 1 | 1 | Do 86th do ... | 8,028 | Blower | 14" dia | do | .. | 75 | .. | 14" dia |
| | | NUNDYDROOG MINES, LIMITED. | | | | | | | | |
| 1 | 1 | 48th level Balaghat North ... | 4,184 | Aeroto | 75" | 580 | 372 | 93,000 | 3·8 | 31 sq. ft. |
| 1 | 1 | 48th level Taylor's South ... | 4,186 | Sirocco | 56"×64" | 416 | | 98,000 | 4·8 | 48 sq. ft. |
| 1 | 1 | 48th level Balaghat North ... | 4,184 | do | 55"×40" | 430 | | 96,000 | 3·3 | 38·6 ,, |
| 1 | 1 | 60th level No. 4 Auxiliary ... | 5,473 | do | 20"×11" | 1,450 | | 3,000 | 5·5 | 18" Vent. pip. |
| 1 | 1 | 63rd level No. 1 Do ... | 5,891 | do | 35"×30" | 640 | | 24,000 | 4·87 | 28" Vent. pip. |
| 1 | 1 | 62nd level No. 2 Do ... | 5,757 | do | 35"×30" | 560 | | 20,000 | 4·2 | 28" Vent. pip. |
| 1 | 1 | 64th level No. 3 Do ... | 6,034 | do | 35"×30" | 550 | | 16,000 | 2·5 | 28" Vent. pip. |
| 1 | 1 | 63rd level No. 4 Auxiliary Sink ... | 5,891 | do | 35"×30" | 550 | | 20,000 | 5·05 | 28" Vent. pip. |
| 1 | 1 | Taylor's Nundydroog ... | Surface | do | 55"×30" | 360 | | 36,000 | 2·5 | 30 sq. ft. |
| 1 | 1 | Taylor's Balaghat ... | Do | do | 55"×40" | 395 | | 25,000 | 1·5 | 38·6 ,, |
| 1 | 1 | 44th level Richards ... | 3,821 | do | 20"×11" | 1,450 | | 8,200 | 5·0 | 18" Vent. Pip. |

*Underground Air Temperatures.*

The deepest workings on the Kolar Gold Field are over 8,200 ft. vertically below field datum, the rock temperature at this horizon being about 134°F.

The following statements 'A' and 'B' show the air temperatures recorded in some of the important underground stations and at selected working places in the bottom levels of Champion Reef and Ooregum Mines, the two deepest in this field. Owing to the incidence of high wet bulb temperatures met with in some of the working places, the workmen are occasionally overcome by heat but they recover when removed to a well-ventilated place. These cases of "heat exhaustion" are different from those of "heat stroke" occurring in the Rand Mines and very rarely prove fatal. There were 23 cases of heat exhaustion during the year under report as against 22 in the previous year. Of these, 19 were due to excessive heat, one to non-acclimatisation and the rest to other causes.